

AMENDMENTS

AMENDMENTS TO CLAIMS

This listing of claims replaces all previous listings, and versions, of claims in the application.

Listing Of Claims

1. (currently amended) A [multi-media] surveillance system having [a plurality of sensors each] at least one camera adapted to produce an IP [sensor] signal [when activated], the IP [sensor] signal [adapted for] being transmitted over an IP network [to a remote monitor station for managing the signal to provide surveillance data to authorized personnel], the system comprising:

[a. an biometric data collection device adapted for collecting facial data] a camera, the camera having an image collection device operable for collecting image data, the camera having an analog to digital converter in communication with the image collection device for converting collected image data from analog format to digital format image data, the camera having at least one processor in communication with the analog to digital converter for receiving the digital format image data, the at least one processor being operable for executing with the digital format image data at least one facial recognition algorithm, execution of the at least one facial recognition algorithm producing at least one set of facial image data, the at least one processor being operable for executing with the digital format image data at least one compression algorithm, execution of the at least one compression algorithm producing at least one set of compressed image data, the camera having a network protocol stack for transmitting the at least one set of facial image data and the at least one set of compressed image data to the IP network.

[facial data collection device converting the collected data to an IP protocol for generating a biometric signal for distribution over a network;
b. a remote station for receiving and managing the biometric data.]

2. (currently amended) The system of claim 1, further comprising:
a server [at remote station for receiving] in communication with the IP network, the server being remote from the camera, the server receiving the at least one set of facial image data [and managing the biometric data].

3. (currently amended) The system of claim [1, wherein the biometric collection device is an image collector] 2 and further comprising:
the server being in communication with at least one facial image database, the server being in communication with at least one facial signature processor, the at least one facial signature processor being operable to compare the at least one set of facial image data with the at least one facial image database.

4. (currently amended) The system of claim [3, wherein the image collector is a camera for collecting a facial image and wherein the biometric data is a facial image data] 1 and further comprising:
the at least one facial recognition algorithm including at least one facial separation algorithm, the at least one facial separation algorithm when executed producing at least one set of facial separation data, the at least one set of facial image data including the at least one set of facial separation data.

5. (currently amended) The system of claim [4, further including] 1 and further comprising:
a plurality of cameras in communication with the IP network [throughout a network] for collecting [facial] image data [throughout the network] at distributed locations.

6. (currently amended) The system of claim [3, including] 5 and further comprising:
a server [at the remote station] in communication with the IP network, the server being remote from the plurality of cameras, the server [for] receiving [and managing the facial image data] from each camera respective of the at least one set of facial image data.

7. (currently amended) The system of claim [6,] 2 and further comprising:
the server [including a] being in communication with at least one facial image database [data
base for comparing the facial image data with data in the facial image data base], the server
being in communication with at least one facial signature processor, the at least one facial
signature processor being operable to compare each of the at least one set of facial image data
with the at least one facial image database.

8. (currently amended) The system of claim [6, the remote station] 2 and further
comprising:
the server being in communication with a third party database [remote station adapted] for at
least one of sending, [and] receiving, and both sending and receiving facial image data to a third
party [controlled data base].

9. (currently amended) The system of claim 1[, wherein the] and further comprising:
a remote station [is a wireless monitor] in communication with the IP network, the remote station
receiving the at the at least one set of compressed image data, the remote station being operable
to display the at least one set of compressed image data..

10. (currently amended) The system of claim 9[, wherein the remote station is a PDA] and
further comprising:
the remote station receiving the at least one set of facial image data, the remote station being in
communication with at least one facial image database, the server being in communication with
at least one facial signature processor, the at least one facial signature processor being operable
to compare the at least one set of facial image data with the at least one facial image database,
the remote station being operable to display a result provided by the at least one facial image
processor.

11. (currently amended) The system of claim 1[, wherein the] 9 and further comprising:
wherein the remote station includes at least one of:
[is] a desktop [personal] computer, a portable computer, a PDA, and a wireless device.

12. (canceled) The system of claim 1, wherein the remote station is a laptop computer.

13. (currently amended) The system of claim 1[,] and further [including] comprising: an access control device in communication with the IP network, the access control device being responsive to an activation signal [and wherein], the control device [is] being activated upon confirmation of [biometric data collected by the biometric collector] identity between the at least one set of facial image data and data in a facial image database.

14. (currently amended) The system of claim [1,] 9 and further comprising: the remote station further including a system map database and a display monitor for displaying the system map, the system map including an icon for identifying the location of the [biometric data collection device] camera.

15. (currently amended) The system of claim [14, wherein there are] 14 and further comprising: a plurality of [biometric data collection devices and wherein there is] cameras in communication with the IP network, the remote station displaying an identifying icon for each of said [plurality of biometric data collection devices] cameras.

16. (currently amended) The system of claim 15[, further including] and further comprising: a tracking system in communication with the remote station for tracking the progress of an individual as he moves from a field of view of a camera [one biometric collection device] to [the next biometric collection device] a field of view of a subsequent camera.

17. (currently amended) The system of claim 2[, wherein there is further included] and further comprising: a storage device in communication with the IP network for archiving [the collected data] archival data, the archival data including least one of:
the at least one set of facial image data and the at least one set of compressed image data.

18. (currently amended) The system of claim 17[, the server including] and further comprising:
a data mining system in communication with the IP network for mining the [archived collected] archival data.

19. (new) A surveillance camera adapted to be connected to an internet protocol network, the surveillance camera comprising:

an image collection device, the image collection device being operable to collect image data;

at least one analog to digital converter in communication with the image collection device for converting collected image data from analog format to digital format image data;

at least one processor in communication with the analog to digital converter to receive the digital format image data;

at least one facial recognition algorithm embodied in suitable media, the at least one facial recognition algorithm being executable with the digital format image data by the at least one processor, execution of the at least one facial recognition algorithm producing at least one set of facial image data;

at least one compression algorithm embodied in suitable media, the at least one compression algorithm being executable with the digital format image data by the at least one processor, execution of the at least one compression algorithm producing at least one set of compressed image data; and

a network stack in communication with the at least one processor, the network stack being operable to transmit the at least one set of facial image data and the at least one set of compressed image data to the internet protocol network.

20. (new) A camera according to claim 19 and further comprising:

a housing, the housing commonly supporting the image collection device, the at least one analog to digital converter, the at least one facial recognition algorithm, the at least one processor, the at least one compression algorithm, and the internet protocol network stack.

21. (new) A camera according to claim 19 and further comprising:

the at least one facial recognition algorithm including at least one facial separation algorithm, execution of the at least one facial separation algorithm with the digital format data producing at least one set of facial separation data corresponding to the digital format image data.

22. (new) A camera according to claim 21 and further comprising:

the at least one facial recognition algorithm including at least one facial signature algorithm;

the at least one processor being in communication with at least one facial signature database to obtain from the at least one facial signature database a plurality of sets of reference facial separation data, execution of the at least one facial signature algorithm comparing the at least one set of facial separation data and the plurality of sets of reference facial separation data to identify correlations between the at least one set of facial separation data and the plurality of sets of reference facial separation data.

23. (new) A camera according to claim 22 and further comprising:

wherein the at least one facial signature database is stored in local media, the local media being located in the camera.

24. (new) A camera according to claim 22 and further comprising:

wherein the at least one facial signature database is stored in remote media at a location remote from the camera, the remote media being in communication with the internet protocol network, the plurality of sets of reference facial separation data being provided from the remote media to the camera over the internet protocol network.

25. (new) A camera according to claim 19 and further comprising:

the at least one set of compressed image data including at least one set of low resolution compressed image data having a respective low resolution and at least one set of high resolution compressed image data having a respective high resolution, the low resolution being less than the

high resolution.

26. (new) A camera according to claim 25 and further comprising:

the at least one set of low resolution compressed image data including MPEG data, the at least one set of high resolution compressed image data including JPEG data.

27. (new) A camera according to claim 19 and further comprising:

the network stack transmitting a portion of the at least one set of compressed image data according to multicast protocol.

28. (new) A camera according to claim 25 and further comprising:

the network stack transmitting the at least one set of low resolution compressed image data according to multicast protocol.

29. (new) A camera according to claim 28 and further comprising:

the network stack transmitting the at least one set of high resolution compressed image data according to one of: multicast protocol and unicast protocol.

30. (new) A camera according to claim 26 and further comprising:

the network stack transmitting the at least one set of low resolution compressed image data including MPEG data according to multicast protocol, the network stack transmitting the at least one set of high resolution compressed image data including JPEG data according to one of: multicast protocol and unicast protocol.

31. (new) A camera according to claim 21 and further comprising:

the network stack transmitting the at least one set of facial separation data according to multicast protocol to a remote recipient, the remote recipient being in communication with the internet protocol network, the remote recipient being in communication with at least one facial signature processor, the at least one remote facial signature processor being associated with suitable media embodying at least one facial signature algorithm, the at least one remote facial signature processor being operable to execute the at least one facial signature algorithm, the at least one remote facial signature processor being in communication with at least one facial signature database to obtain from the at least one facial signature database a plurality of sets of reference facial separation data, the at least one facial signature algorithm when executed comparing the at least one set of facial separation data and the plurality of sets of reference facial separation data to identify correlations between the at least one set of facial separation data and the plurality of sets of reference facial separation data.

32. (new) A surveillance camera adapted to be connected to an internet protocol network, the surveillance camera comprising:

an image collection device, the image collection device being operable to collect image data of a field of view, the image collection device providing digital format image data;

at least one processor in communication with an image collection device to receive the digital format image data;

at least one facial recognition algorithm embodied in suitable media, the at least one facial recognition algorithm being executable with the digital format image data by the at least one processor, execution of the at least one facial recognition algorithm producing at least one set of facial image data; and

a network stack in communication with the at least one processor, the network stack being operable to transmit the at least one set of facial image data to the internet protocol network.

33. (new) A camera according to claim 32 and further comprising:

at least one compression algorithm embodied in suitable media, the at least one compression algorithm being executable with the digital format image data by the at least one processor, execution of the at least one compression algorithm producing at least one set of compressed image data;

the network stack being operable to transmit the at least one set of compressed image data to the internet protocol network.

34. (new) A camera according to claim 32 and further comprising:

a housing, the image collection device, the at least one facial recognition algorithm, the at least one processor, the at least one compression algorithm, and the internet protocol network stack.

35. (new) A camera according to claim 32 and further comprising:

the at least one facial recognition algorithm including at least one facial separation algorithm, execution of the at least one facial separation algorithm with the digital format data producing at least one set of facial separation data corresponding to the digital format image data.

36. (new) A camera according to claim 35 and further comprising:

the at least one facial recognition algorithm including at least one facial signature algorithm;

the at least one processor being in communication with at least one facial signature database to obtain from the at least one facial signature database a plurality of sets of reference facial separation data, execution of the at least one facial signature algorithm comparing the at least one set of facial separation data and the plurality of sets of reference facial separation data to identify correlations between the at least one set of facial separation data and the plurality of sets of reference facial separation data.

37. (new) A camera according to claim 32 and further comprising:

the at least one set of compressed image data including at least one set of low resolution compressed image data having a respective low resolution and at least one set of high resolution compressed image data having a respective high resolution, the low resolution being less than the high resolution.

38. (new) A camera according to claim 37 and further comprising:

the at least one set of low resolution compressed image data including MPEG data, the at least one set of high resolution compressed image data including JPEG data.

39. (new) A camera according to claim 32 and further comprising:

the network stack transmitting a portion of the at least one set of compressed image data according to multicast protocol.

40. (new) A camera according to claim 37 and further comprising:

the network stack transmitting the at least one set of low resolution compressed image data according to multicast protocol.